Application/Control Number: 10/018,106

Art Unit: ***

CLMPTO

December 17, 2004

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- 1. (Amended) A coating material curable thermally and with actinic radiation, comprising
 - (a1) at least one constituent containing

(a11) at least two functional groups which serve for crosslinking with actinic radiation, and if desired

(a12) at least one functional group which is able to undergo thermal crosslinking reactions with a complementary functional group (a22) in the constituent (a2), and

(a2) at least one constituent containing

(a21) at least two functional groups which serve for crosslinking with actinic radiation, and

(a22) at least one functional group which is able to undergo thermal crosslinking reactions with a complementary functional group (a12) in the constituent (a1),

and also optionally one or more members selected from the group consisting of (a3) at least one photointilator, (a4) at least one thermal crosslinking initiator, (a5)—at least one reactive diluent curable thermally and/or with actinic radiation, (a6)—at least one coatings additive, and/or (a7) at least one thermally curable constituent, with the proviso that the coating material contains at least one thermally curable constituent (a7) if the constituent (a1) has no functional group (a12).

 (Amended) The coating material of claim 1, wherein the functional groups (a11) and (a21) comprise at least one group selected from ofefficially unsaturated groups or epoxide groups. Art Unit: ***

- 3. (Amended) The coating material of claim 1, wherein the constituent (a1) comprises a urethene (meth)acrylate and the constituent (a2) comprises at least one member selected from a (meth)acrylate-functional (meth)acrylate copolymer containing free isocyanate groups, a (meth)acrylate-functional polyisocyanate, and mixtures thereof.
- 4.(Amended) A process of sealing a substrate selected from the group consisting of SMCs (sheet molded compounds) and BMCs (bulk molded compounds), comprising

applying the coating material of claim 1 to a substrate selected from the group consisting of SMC substrates and BMC substrates to provide a coated substrate, and

curing the coated substrate with actinic and thermal energy to provide a sealed substrate.

Claim 5 (cancel)

8.(Amended) A process for eliminating microbubbles from topcoated microporous substrates, comprising

applying a coating composition to a microporous substrate to provide a coated microporous substrate, said coating composition curable both actinically and,

curling the coated microporous substrate both actinically and thermally to provide a sealed microporous substrate,

applying one or more topcoat coating materials to the sealed microporous substrate to provide a topcoated sealed substrate, and

thermally curing the topcoated sealed substrate to provide a topcoated microporous article having no microbubbles.

7.(Amended) An SMC (sheet molded compound) or BMC (bulk molded compound) sealed with the coating material of claim 1.

Claim 8 (cancel)

Art Unit: ***

- 9.(Amended) An automobile comprising sealed SMC (sheet molded compounds and/or BMCs (bulk molded compounds) as claimed in claim 7.
- 10.(Amended)The process of claim 6 wherein the thermal cure of the coated microporous article and the topcoated sealed substrate occur simultaneously.
- 11.(Amended) The process of claim 8 wherein the one or more topcoating materials are selected from the group consisting of clearcoats, colored topcoats effect coating materials, and mixtures thereof.
- 12.(Amended) An article selected from the group consisting of motor vehicle parts, plastics parts, furniture, coils, containers, and industrial parts which is made by the process of claim 6.
- 13. (New) The coating material of claim 1, wherein the functional groups (e12) comprise hydroxyl groups.
- 14. (New) The coating material of claim 1, wherein the functional groups (a22) comprise isocyanate groups.
- 15. (New) The coating material of claim 2, wherein the functional groups (a11) and (a21) are olefinically unsaturated groups.
- 16. (New)The process of claim 6 wherein said coating composition comprises at least one constituent (a1) having at least two functional groups (a11) and no functional groups (a12),